

Work Order ID 84837

\*84837\*

Page 1

Item ID: D206-642-341

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Replacement Skidtube

Start Date: 24/05/2012 Start Qty: 1.00

\*1\*

Cust Item ID:

Required Date: 07/06/2012 Req'd Qty: 1.00

\*1\*

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/05/20

Tooling:

Date:

Run Start \*NR1\*

QC:

Date: SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D2650

F

100

0.00

\*100\*

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and create labels per PPP D206-642-341 CHG003

N/A

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 84837

**\*84837\***

Page 2

May-24-12 7:57:07 AM

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**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: Replacement Skidtube

Stop **\*NS2\***

Start Date: 24/05/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 07/06/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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110

0.00

**\*110\***

Skidtubes

0.00

Skidtubes

Skidtubes

Memo

1-Deburr Fwd edge of tube

2-Remove ridge on inside of Fwd edge of tubeas per Dwg D2650

3-Weld Fwd Cap as per Dwg D2650. Use aluminum rod. Grind D2647 to fit as required.

A/RAluminum Rod M2064

4-Grind weld flush to cap on top surface only.

~~5~~-Cut aft end to lenght as per dwg D2650

~~6~~-Drill pilot holes using drill Jig DT8168A (A,& B ) and DT8025. Open to Ø0.312"

~~7~~-Drill holes for wearplates using DT 8028-5. Open to Ø 0.297".

~~8~~Open Aft Cap Hole using #6 Drill Bit

~~9~~Open holes for Tow Ring to Ø0.625" as per Dwg D2650, D2650-5 Drilling Detail

~~10~~-Remove inner indexing ridge on aft end of skidtubeas per Dwg D2650

~~11~~-Deburr and Blow out all chips form inside the tube

CF 12.5-29

BE 12-05-29

CF 12.5-29

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Page 3

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Setup Start **\*NS1\***

Revision ID:

Item Name: Replacement Skidtube

Stop **\*NS2\***

Start Date: 24/05/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 07/06/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
115 <b>*115*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00 0.00							
120 <b>*120*</b> HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1  Memo	0.00 0.00							
125 <b>*125*</b> QC Quality Control	QC7-Inspect Chemical Conversion Coat  Memo	0.00 0.00							

8/26/31

1 7/6 12-5-35

12-6-1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Page 4

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Stop **\*NS2\***

Start Date: 24/05/2012 Start Qty: 1.00

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Cust Item ID:

Required Date: 07/06/2012 Req'd Qty: 1.00

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Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

0.00

**\*130\***

Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Open holes to finished size as per Dwg D2650, D2650-5 Drilling Detail  
(without cutting fluid)

2-Countersink crossbolt spacer holes as per Dwg D2650(without cutting fluid)

3-Deburr. Blow out chips. Grind alodine off around crossbolt spacer.

4-Bond D2654-5 web in place as per QSI 015Ensure holes line upAllow 12 Hrs.  
cure time before cutting

Start Date: 12-6-7 Time: 11:20

Finish Date: 12-06-11 Time: 11:30

A/RSikaflex-291 m121409

Sikaflex expiry date: 13-04-12

4

*de 12/06/07*

*CF 12-6-1*

140

QC5- Inspect part completeness to step on W/O

0.00

**\*140\***

QC

Memo

0.00

Quality Control

*1 8 862/06/11*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Page 5

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**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Replacement Skidtube

Start Date: 24/05/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 07/06/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

150

0.00

**\*150\***

Skidtubes

Skidtubes

Memo

0.00

1-Prep per QSI 005 and Insert cross bolt spacers D2649. Weld as per QSI 004 and Dwg D2650. Remember to back drill each hole to 0.25" before welding the other side. Use aluminum rod  
A/RAluminum Rod *m/20/64* *BE 12/06/11*

2-Grind welds flush as per Dwg D2650. Masking Tape access to inside of the Skidtube

3-Counterbore 5/16" x 0.750" deep as per Dwg D2650Deburr

4- Install nut plate as per dwg

170

QC10- Inspect visual per QSI004- ground welds

0.00

**\*170\***

QC

Memo

0.00

Quality Control

*5/2/04/14**12-6-13*

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Page 6

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**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Item Name: Replacement Skidtube

Stop **\*NS2\***

Start Date: 24/05/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 07/06/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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180

QC5- Inspect part completeness to step on W/O

0.00

**\*180\***

QC

Memo

0.00

Quality Control

8/26/14

190

Pressure Wash per QSI005 4.3

0.00

**\*190\***

HandFinish

Memo

0.00

Hand Finishing

Brush alodine tube on crossbolt spacer area, do not acid etch, do not dip tube in tank.

1 7/6 12-6-14

200

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

**\*200\***

Powdercoat

Memo

0.00

Powder Coating

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

7=30  
3200F  
8:00m/L  
IX 4 12/06/15

m121134

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**\*84837\***

Page 7

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**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: Replacement Skidtube

Stop **\*NS2\***

Start Date: 24/05/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 07/06/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

210

QC3- Inspect Part Finish

0.00

**\*210\***

QC

Memo

0.00

Quality Control

*1x 1 11/06/12*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**\*84837\***

Page 8

May-24-12 7:57:07 AM

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Setup Start **\*NS1\***

Revision ID:

Item Name: Replacement Skidtube

Stop **\*NS2\***

Start Date: 24/05/2012 Start Qty: 1.00 **\*1\***

Cust Item ID:

Required Date: 07/06/2012 Req'd Qty: 1.00 **\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220	HandFinishing	0.00							
<b>*220*</b>	HandFinish	0.00				1	8	28	12/06/19
Hand Finishing	<p><b>Memo</b></p> <p>1-Install inserts &amp; wearpads as per dwg D2922. Use a drop of Sikaflex inside insert holes before installing wearpad/wearplate. A/RSikaflex-291 <u>121409</u> Sikaflex expiry date: <u>13/07</u></p> <p>2-Install O-Rings D2651-3 on plugs D2651-1 with Petroleum Jelly and install plugs as per Dwg D2650. Clean excess adhesive</p> <p>3-Install MS27039-4-06 Screw</p> <p>4-Inspect for foreign object per QSI 024</p> <p>5-Install D2646 Aft Cap and seal with SikaflexClean excess adhesive A/RSikaflex-291 <u>121409</u> Sikaflex expiry date: <u>13/07</u></p> <p>6-Wing Walk as per Dwg D2650-5 and QSI 005 4.4 Batch: <u>121613</u></p>								

1 8 20 12/06/19.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Page 9

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Setup Start **\*NS1\***

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Item Name: Replacement Skidtube

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Cust Item ID:

Required Date: 07/06/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

230

QC3- Inspect Part Finish

0.00

**\*230\***

QC

Memo

0.00

Quality Control

240

QC5- Inspect part completeness to step on W/O

0.00

**\*240\***

QC

Memo

0.00

Quality Control

250

Packaging

0.00

**\*250\***

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D206-642-341

Location:

PPP Rev:

*PPP 84835*

*(Signature)*

*12/1/9 (1)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Page 10

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Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260	QC21- Final Inspection - Work Order Release	0.00							
<b>*260*</b>									
QC	Memo	0.00							
Quality Control									

*OK* 12/7/12

*R1207-11*

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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# Picklist Print

May-24-12 7:57:11 AM

Page 1

Work Order ID: 84837

\*84837\*

Parent Item: D206-642-341

\*D206-642-341\*

Parent Item Name: Replacement Skidtube

Start Date: 24/05/2012

Required Date: 07/06/2012

Start Qty: 1.00

Required Qty: 1.00

## Comments:

IPP Rev: H05.10.11 Added D3429-1 per CHG004KJ/CP/JLM  
IPP Rev: I 08-09-29 revF as per dwg DD verified by: EC Est Rev: J 09-03-02 as per DSI9440 rev.a DD verified by: EC IPP rev K 10.08.03 chg ms27039-1-08 for "C" type EC verified by DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN960JD416 *AN960JD416* Washer	<del>NAS1149D0463J</del>	Purchased	No				Each	30.0000		1			
									**	1		12/06/12	
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST351				30					
					116289			10					
					119097			20					
CCR264SS3-3 *CCR264SS3-3* Cherry Rivet		Purchased	No				Each	364.0000		2			
									**			12-6-12	
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST331				364					
					113973			2					
					117849			81					
					119017			281					
CR3212-4-03 *CR3212-4-03* Cherry Rivet		Purchased	No				Each	1,278.000		2			
									**			12-6-12	
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				FP002				350					
					114859			350					
				ST331				928					
					110139			2					
					119017			926					

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

May-24-12 7:57:11 AM

Page 2

Work Order ID: 84837

**\*84837\***

Parent Item: D206-642-341

**\*D206-642-341\***

Parent Item Name: Replacement Skidtube

Start Date: 24/05/2012

Required Date: 07/06/2012

Start Qty: 1.00

Required Qty: 1.00

D2620

Manufactured No

Each

17.0000

1

**\*D2620\***

Skidtube, 206 Skidtube

\*\*

CF 12-5-29

Location

Loc Qty

Loc Code

LG

17

79543

2

79544

1

81365

1

82517

3

82518

10

D2647

Manufactured No

Each

79.0000

1

**\*D2647\***

Cap

\*\*

BEQ-05-29

Location

Loc Qty

Loc Code

LG002

79

75482

3

79563

76

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

May-24-12 7:57:11 AM

Page 3

Work Order ID: 84837

\*84837\*

Parent Item: D206-642-341

\*D206-642-341\*

Parent Item Name: Replacement Skidtube

Start Date: 24/05/2012

Required Date: 07/06/2012

Start Qty: 1.00

Required Qty: 1.00

D2649

Manufactured No

Each

415.0000

19

\*D2649\*

\*\*

Cross Bolt Spacer

8/12/06/11

## Location

## Loc Qty

## Loc Code

LG

272

77574

2

79502

8

79503

251

79564

4

79565

7

LG001

143

65317

1

68224

2

68507

11

71355

2

72704

2

72841

11

73390

8

73857

21

73858

53

73859

4

73860

4

78020

6

78583

2

79566

16

D2654-5

Manufactured No

Each

1.0000

1

\*D2654-5\*

\*\*

Web

CF 12-6-7

## Location

## Loc Qty

## Loc Code

LG

1

82128

1

B85209

①

May-24-12 7:57:11 AM

Shop Packet Print

Page 3

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

May-24-12 7:57:11 AM

Page 4

Work Order ID: 84837

\*84837\*

Parent Item: D206-642-341

\*D206-642-341\*

Parent Item Name: Replacement Skidtube

Start Date: 24/05/2012

Required Date: 07/06/2012

Start Qty: 1.00

Required Qty: 1.00

D2680-041

Manufactured No

Each

87.0000

1

\*D2680-041\*

Nut Plate

\*\*

12-6-12

## Location

## Loc Qty

## Loc Code

ST013

87

78016

87

MS27039-1-08

Purchased

No

Each

1,733.000

\*MS27039-1-08\*

Screw

\*\*

12/06/12

## Location

## Loc Qty

## Loc Code

ST291

1733

117423

81

119075

1

120308 ✓

594

121011

57

121243

500

121708

500

MS27039C1-08

Purchased

No

Each

1,022.000

\*MS27039C1-08\*

SCREW

\*\*

54

54 12/06/12

## Location

## Loc Qty

## Loc Code

FP002

1

116022

1

ST292

1002

120308

354

121068

108

121162 ✓

540

ST293

19

116373

3

118077

14

119309

2

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

May-24-12 7:57:11 AM

Page 5

Work Order ID: 84837

Parent Item: D206-642-341

Parent Item Name: Replacement Skidtube

\*84837\*

\*D206-642-341\*

Start Date: 24/05/2012

Required Date: 07/06/2012

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-130

Purchased

No

220

Each

3,051.000

54

54

\*AI S4-1032-130\*

Insert

\*\*

54

2P

12/06/19.

## Location

## Loc Qty

## Loc Code

ST280

205

119084

116

120671

89

ST281

124

120807

36

120837

88

ST282

2722

121269 ✓

2722

AN960C10L

✗ NAS1149C0332 ✓ Purchased

No

220

Each

0.0000

54

54

\*AN960C10I \*

washer

\*\*

54

2P

12/06/19.

AN960JD10L

✗ NAS1149D0332J ✓ Purchased

No

220

Each

0.0000

2

2

\*AN960JD10I \*

Washer

\*\*

2

2P

12/06/19.

D2646

Manufactured

No

220

Each

32.0000

1

1

\*D2646\*

Aft Cap

\*\*

1

2P

12/06/19.

## Location

## Loc Qty

## Loc Code

FP002

32

62678

5

68280

5

70945

1

71070

2

73294

1

73825

2

78018

4

79562

12

May-24-12 7:57:11 AM

Shop Packet Print

Page 5

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

May-24-12 7:57:11 AM

Page 6

Work Order ID: 84837

**\*84837\***

Parent Item: D206-642-341

**\*D206-642-341\***

Parent Item Name: Replacement Skidtube

Start Date: 24/05/2012

Required Date: 07/06/2012

Start Qty: 1.00

Required Qty: 1.00

D2651-1

Manufactured No

220

Each

439.0000

14

14

**\*D2651-1\***

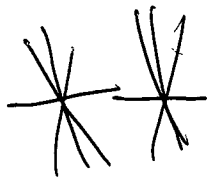
Plug

\*\*

CV

OP

12/06/19



Location

Loc Qty

Loc Code

FP

200

FP001

425

57869

1

66445

10

69018

2

70827

2

70839

8

71037

8

77559

30

78584

18

79234

46

FP-A

-186

77559

1

78124

5

81954

108

82573 ✓

200

D2651-3

Manufactured No

220

Each

1,246.000

14

14

**\*D2651-3\***

O-Ring

\*\*

14

OP

12/06/19

Location

Loc Qty

Loc Code

FP001

16

61962

12

73828

4

FP-A

1230

78126 ✓

1230

May-24-12 7:57:11 AM

Shop Packet Print

Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

May-24-12 7:57:11 AM

Page 7

Work Order ID: 84837

\*84837\*

Parent Item: D206-642-341

\*D206-642-341\*

Parent Item Name: Replacement Skidtube

Start Date: 24/05/2012

Required Date: 07/06/2012

Start Qty: 1.00

Required Qty: 1.00

D3535-11

Manufactured No

220 Each

16.0000 1 1

\*D3535-11\*

Wearshoe

\*\*

1 (2P) 12/06/19

Location

Loc Qty

Loc Code

FP001

16

82153 ✓

16

D3535-23

Manufactured No

220 Each

18.0000 1 1

\*D3535-23\*

Wearshoe

\*\*

1 (2P) 12/06/19

Location

Loc Qty

Loc Code

FP001

18

81355

1

83375 ✓

17

D3535-35

Manufactured No

220 Each

30.0000 1 1

\*D3535-35\*

Wearshoe

\*\*

1 (2P) 12/06/19

Location

Loc Qty

Loc Code

FP001

30

67598

1

70815

1

78873

13

79849

1

82064

1

83638 ✓

13

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

May-24-12 7:57:11 AM

Page 8

Work Order ID: 84837

\*84837\*

Parent Item: D206-642-341

\*D206-642-341\*

Parent Item Name: Replacement Skidtube

Start Date: 24/05/2012

Required Date: 07/06/2012

Start Qty: 1.00

Required Qty: 1.00

D3536-11

Manufactured No

220

Each

16.0000

1

1

\*D3536-11\*

Gasket

\*\*

1 20 12/06/19.

## Location

## Loc Qty

## Loc Code

FP002

16

46649

1

46715

4

65574

1

80006

1

82152 ✓

9

D3536-23

Manufactured No

220

Each

12.0000

1

1

\*D3536-23\*

Gasket

\*\*

1 20 12/06/19.

## Location

## Loc Qty

## Loc Code

FP002

12

74510

1

83377

11

D3536-35

Manufactured No

220

Each

17.0000

1

1

\*D3536-35\*

Gasket

\*\*

1 20 12/06/19.

## Location

## Loc Qty

## Loc Code

FP002

17

81340 ✓

6

82065

11

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

May-24-12 7:57:11 AM

Page 9

Work Order ID: 84837

Parent Item: D206-642-341

Parent Item Name: Replacement Skidtube

\*84837\*

\*D206-642-341\*

Start Date: 24/05/2012

Required Date: 07/06/2012

Start Qty: 1.00

Required Qty: 1.00

D3537-1

Manufactured No

220

Each

79.0000

6

6

\*D3537-1\*

Wearpad

\*\*

6

SP

12/06/19.

Location

Loc Qty

Loc Code

FG

8256 ✓

10

79833

10

FP002

69

69817

5

81360

38

81362

22

83254

1

83255

3

D3537-3

Manufactured No

220

Each

24.0000

1

1

\*D3537-3\*

Wearpad

\*\*

1

SP

12/06/19.

Location

Loc Qty

Loc Code

FP002

24

78836

3

81363 ✓

21

MS27039-4-06

Purchased No

220

Each

131.0000

1

1

\*MS27039-4-06\*

Screw

\*\*

1

SP

12/06/19

Location

Loc Qty

Loc Code

ST292

131

119075 ✓

131

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

QTY -1	QTY -3	QTY -5	QTY -7	PART NUMBER	DESCRIPTION
X				D2650-1	SKIDTUBE ASSEMBLY
	X			D2650-3	SKIDTUBE ASSEMBLY
		X		D2650-5	SKIDTUBE ASSEMBLY
			X	D2650-7	SKIDTUBE ASSEMBLY
1	1	1	1	D2600-1-160	EXTRUSION
1				D2654-1	WEB
	1			D2654-3	WEB
		1		D2654-5	WEB
			1	D2654-7	WEB
1	1	1	1	D2646	AFT CAP
1	1	1	1	D2647	CAP
17	18	19	23	D2649	CROSS BOLT SPACER
16	18	14	22	D2651-1	PLUG
16	18	14	22	D2651-3	O-RING
1	1	1	1	D2680-041	NUT PLATE
2	2			D3286-1	DOUBLER
2	2			D3286-3	STUD
42	44	54	60	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, ALS7-1032-130)
2	2	2	2	AN960JD10L	WASHER
2	2	2	2	CCR264SS3-3	RIVET
2	2	2	2	CR3212-4-03	RIVET
2	2	2	2	MS27039-1-08	SCREW
1	1	1	1	MS27039-4-06	SCREW
1	1	1	1	AN960JD416	WASHER
52	52			CR3212-4-04	RIVET

F

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER

NO. 84837 MLJ  
12/05/28

RELEASED  
08-23-17

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
-POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3  
-BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A
- 8) WELD PER DART QSI 004
- 9) DAMAGE TOLERANCE ON FWD BEND:  
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 10) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015
- 11) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)
- 12) DRILL Ø0.297 FOR ALS7-1032-130 INSERTS USING TEMPLATE DT8056-1 ON -1 TUBE, DT8056-3 ON -3 TUBE, DT8056-5 ON -5 TUBE, AND DT8056-7 ON -7 TUBE. INSTALL INSERTS AFTER FINISH.
- 13) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

F	DRAWING UPDATED TO CURRENT STANDARDS. SHT 6 ADDED. ALL SECTION AND DETAIL VIEWS TRANSFERRED TO SHT 6. SHT 1 IN PL PART D2649 QTY UPDATED. SHT 6 SECT C-C GRIND INSTRUCTIONS DELETED FROM NOTE 7 (SEE NCR 239).	AJS	08.08.08
E	RMOVE CBORE, CHG DRILL, ADD CHAMFER	CP	06.03.30
D	REDRAW; INCCRP. DE09136/9153/9163 MOD GROUND HANDLING ON D2650-1/-3	CP	04.05.17
C	CHANGE HOLE PATTERN AND FRONT END	DS	97.10.29
B	AS MANUFACTURED CHANGES	DS	97.06.26
A	NEW ISSUE	DS	97.03.25
REV.	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 1 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

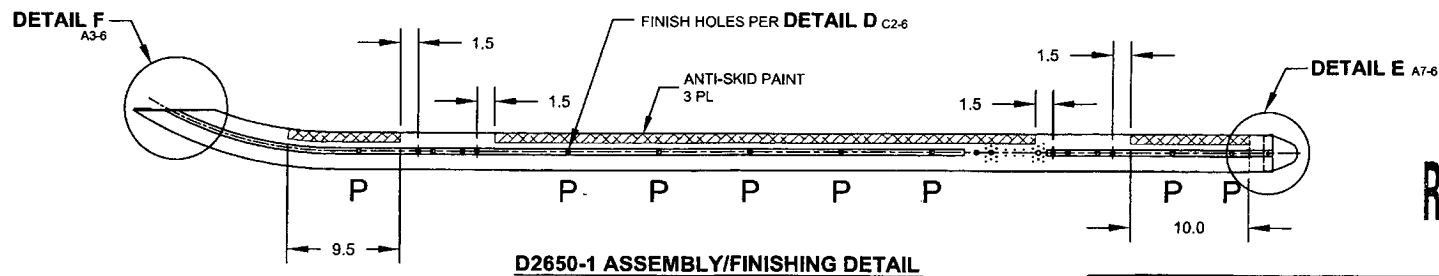
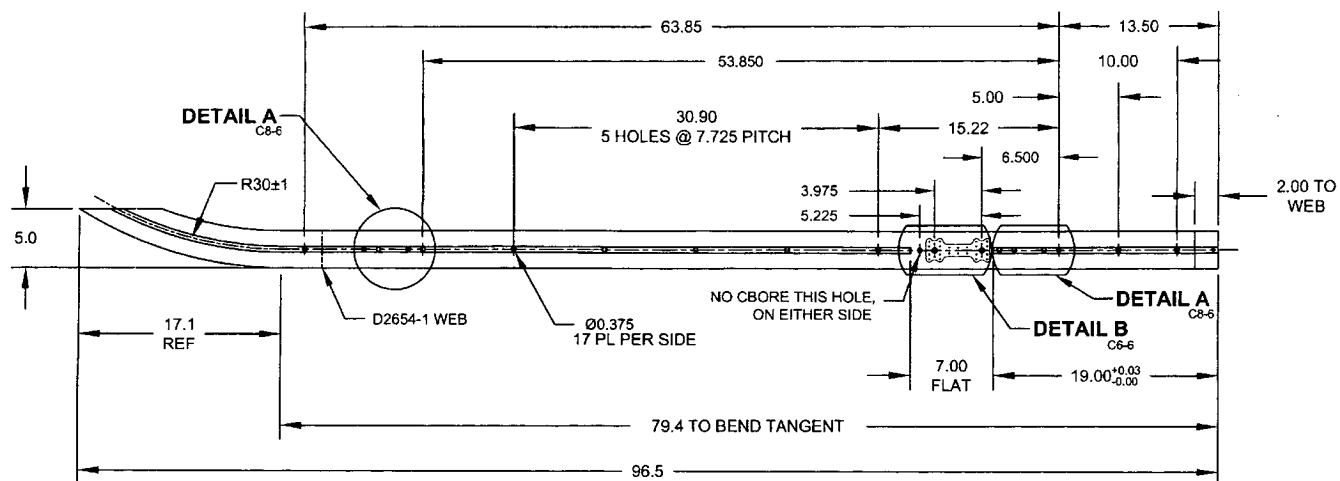
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries





**RELEASED**  
680922/104

DESIGN	DS	<b>DART AEROSPACE USA, INC</b>	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 2 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	<small>COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR TRANSMITTED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

**Dart Aerospace Ltd**

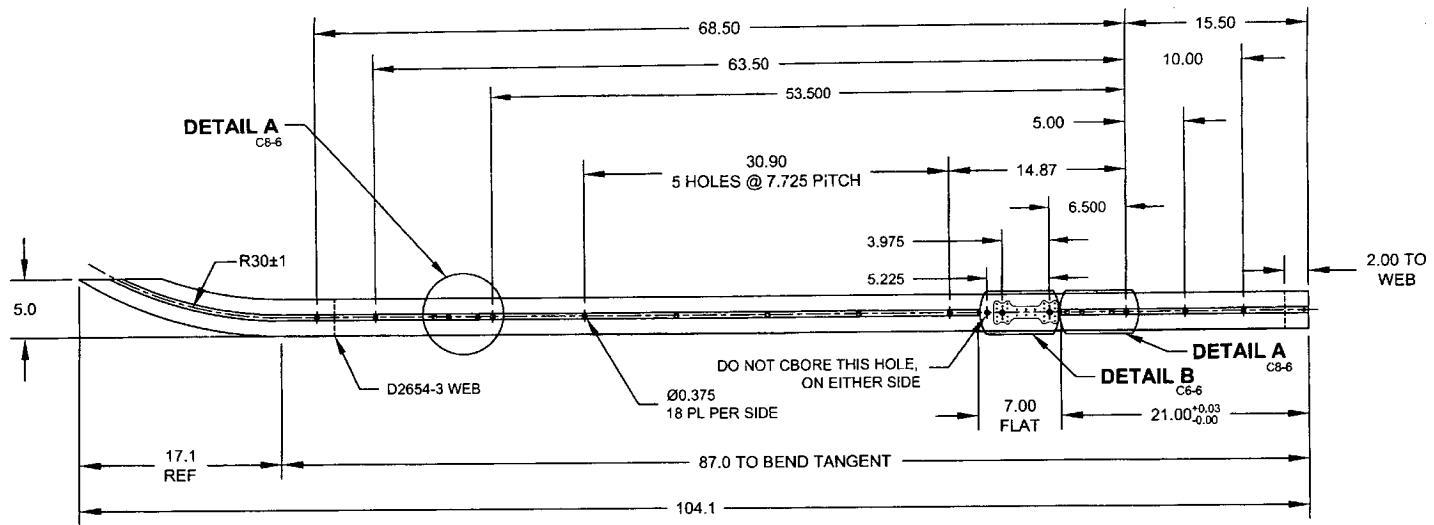
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng Prod Mgr	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

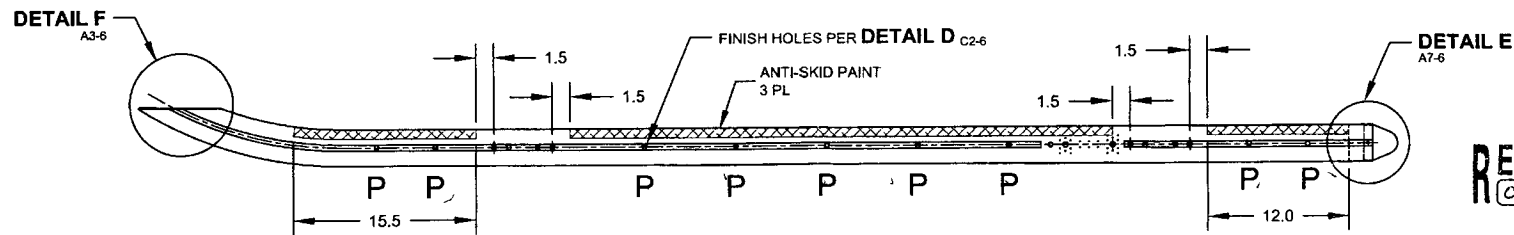
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**D2650-3 BENDING/DRILLING DETAIL**



**D2650-3 ASSEMBLY/FINISHING DETAIL**

DESIGN	DS	<b>DART AEROSPACE USA, INC</b>	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 3 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE 08.08.08		COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

**RELEASED**  
08 07 22 111

24837

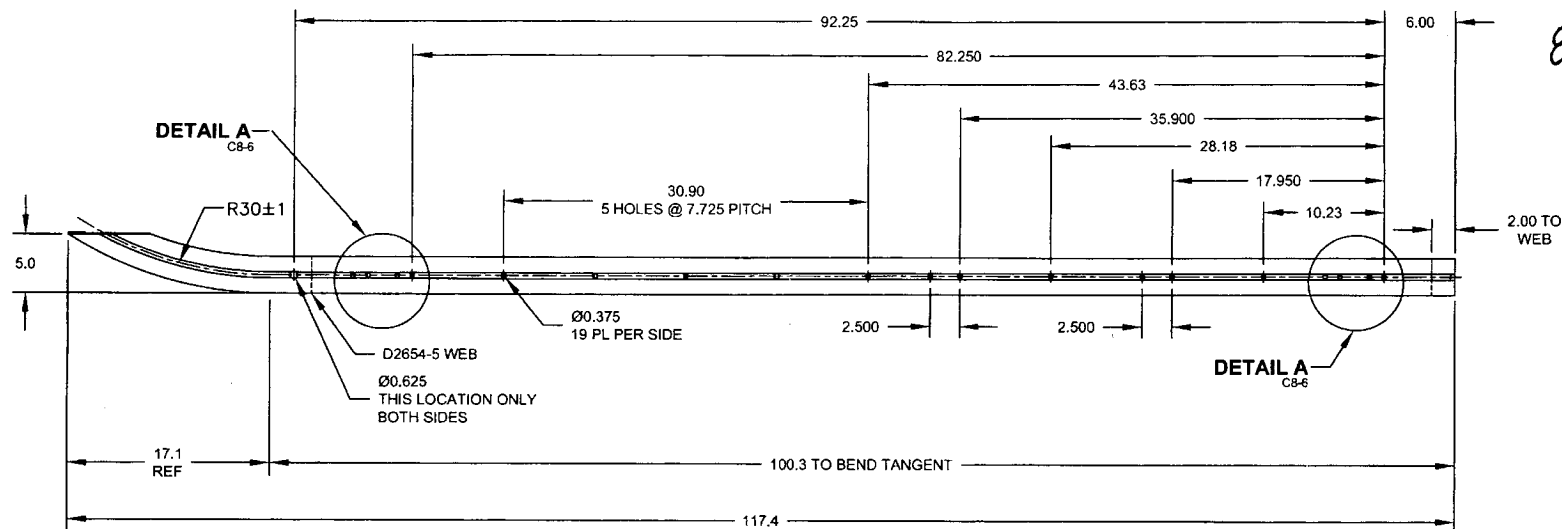
W/O:		WORK ORDER CHANGES				
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng Prod Mgr

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

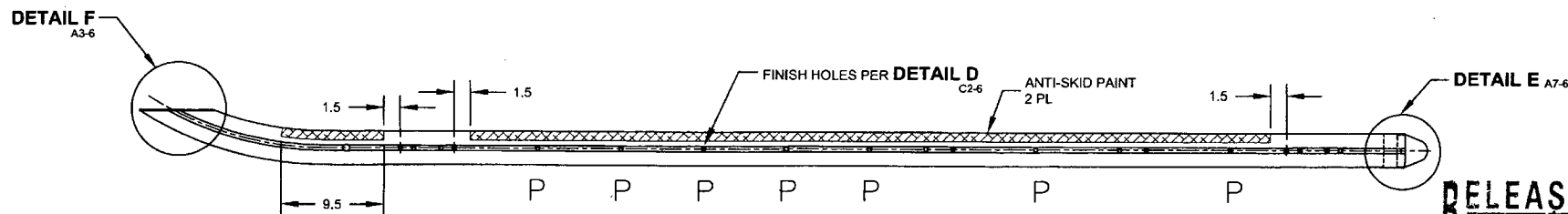
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries:



**D2650-5 BENDING/DRILLING DETAIL**



**D2650-5 ASSEMBLY/FINISHING DETAIL**

DESIGN	DS	<b>DART AEROSPACE USA, INC</b>	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 4 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC	
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08.09.22/117

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

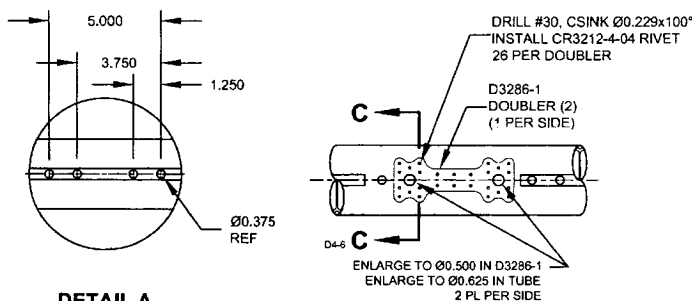
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

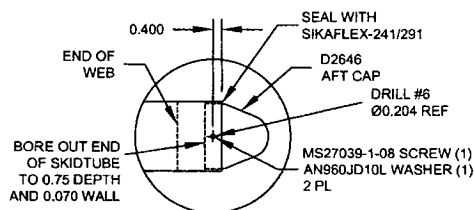


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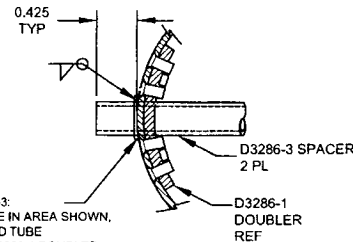
**DETAIL A**  
SCALE 2X  
C2-2  
D7-2  
C2-3  
D7-3  
C2-4  
D7-4  
C2-5  
D6-5

**DETAIL B**  
SCALE 2X  
C3-2  
C3-3

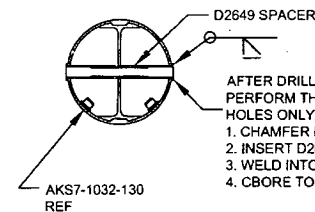


**DETAIL E**  
SCALE 2X  
B2-2  
B2-3  
B1-4  
B1-5

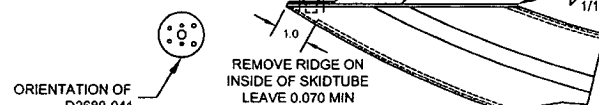
**SECTION C-C** C7-6  
SCALE NONE



- TO INSTALL D3286-1/3:
1. GRIND OFF FLANGE IN AREA SHOWN, FLUSH WITH ROUND TUBE
  2. LOCATE & DRILL D3286-1 DOUBLER USING DT3286-1T1
  3. ENLARGE HOLES IN D3286-1 TO Ø0.500
  4. ENLARGE HOLES IN TUBE TO Ø0.625 AND CHAMFER HOLE 0.030x45°
  5. RIVET D3286-1 TO TUBE
  6. INSERT D3286-3 SPACER
  7. WELD IN PLACE.



**DETAIL D**  
FOR Ø0.375 HOLES ONLY  
SCALE 3X  
B4-2  
B4-3  
B4-4  
B4-5



**DETAIL F**  
SCALE NONE  
B8-2  
B8-3  
B8-4  
B8-5

**DETAIL F NOTES:**

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D2647 (TRIM AS NECESSARY)
4. WELD D2647 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D2680-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D2680-041 PRIOR TO FINISH

**RELEASED**  
08-09-2018

DESIGN	DS	<b>DART AEROSPACE USA, INC</b>	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 6 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
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W/O:		WORK ORDER CHANGES					
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Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

NO. 297

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliott  
Job #: 80951  
Part #: A206-642-151  
Description: Skid tube  
Welding Process: Tig ☒ Mig ☐  
Base material: Alum  
Current: AC ☒ DC ☐

TEST REQUIREMENTS AND RESULTS

Visual:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Incomplete Penetration:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Incomplete Fusion:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Cracks:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Overlap (cold lap)	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Undercut:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Pin holes:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Porosity (surface):	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Coloration:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Burn through:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>

Qualifier David David Date of Test Coupon 12.06.13  
Welder Barclay Elliott Date of Test Coupon 12.06.13

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

